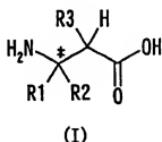


AMENDMENTS TO THE CLAIMS

1. (Original) A production method of an optically active β -amino acid represented by the formula (I)



wherein

R1, R2 and R3

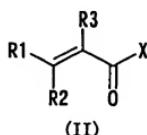
are each independently a hydrogen atom, or an optionally substituted alkyl, alkenyl or aryl group, or

R1 and R3 may be linked to form a straight chain or branched chain alkylene having 1 to 4 carbon atoms,

provided that R1 and R2 are not the same; and

* shows an asymmetric carbon,

which comprises a step of reacting a compound represented by the formula (II)

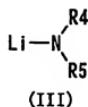


wherein

R1, R2 and R3

are as defined above, and

X is an optionally substituted alkoxy, aryloxy, arylalkyloxy or amino group, with a lithium amide represented by the formula (III)

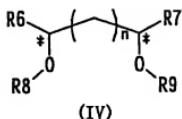


wherein

R4 and R5

are the same or different and each is a silyl-protecting group, or an optionally substituted benzyl, benzhydryl or trityl group,
provided that when one of R4 and R5 is a silyl-protecting group, then the other should be other than a silyl-protecting group,

in the presence of a compound represented by the formula (IV)



wherein

R6, R7, R8 and R9

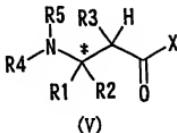
are the same or different and each is an optionally substituted alkyl group or aryl group, or

R6 and R7 may be linked to form a straight chain or branched chain alkylene having 2 to 5 carbon atoms;

n is an integer of 0 to 3; and

* shows an asymmetric carbon that forms a configuration of (S,S) or (R,R).

2. (Original) A production method of an optically active compound represented by the formula (V)



wherein

R1, R2 and R3

are each independently a hydrogen atom, or an optionally substituted alkyl, alkenyl or aryl group, or

R1 and R3 may be linked to form a straight chain or branched chain alkylene having 1 to 4 carbon atoms,

provided that R1 and R2 are not the same;

X is an optionally substituted alkoxy, aryloxy, arylalkyloxy or amino group;

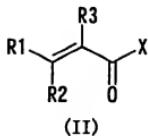
R4 and R5

are the same or different and each is a silyl-protecting group or an optionally substituted benzyl, benzhydryl or trityl group,

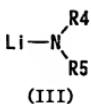
provided that when one of R4 and R5 is a silyl-protecting group, then the other should be other than a silyl-protecting group; and

* shows an asymmetric carbon,

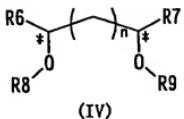
which comprises reacting a compound represented by the formula (II)



wherein R1, R2, R3 and X are as defined above, with a lithium amide represented by the formula (III)



wherein R4 and R5 are as defined above, in the presence of a compound represented by the formula (IV)



wherein

R6, R7, R8 and R9

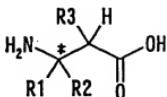
are the same or different and each is an optionally substituted alkyl or aryl group, or R6 and R7 may be linked to form a straight chain or branched chain alkylene having 2 to 5 carbon atoms;

n is an integer of 0 to 3; and

* shows an asymmetric carbon that forms a configuration of (S,S) or (R,R).

3. (Currently Amended) The production method of claim 1 or 2, wherein the reaction is carried out in the additional presence of chlorotrimethylsilane.

4. (Original) A production method of an optically active β -amino acid represented by the formula (I)



(I)

wherein

R_1 , R_2 and R_3

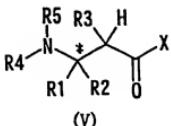
are each independently a hydrogen atom, or an optionally substituted alkyl, alkenyl or aryl group, or

R_1 and R_3 may be linked to form a straight or branched chain alkylene having 1 to 4 carbon atoms,

provided that R_1 and R_2 are not the same; and

* shows an asymmetric carbon,

which comprises subjecting a compound represented by the formula (V)



wherein

R_1 , R_2 , R_3 and *

are as defined above;

X is an optionally substituted alkoxy, aryloxy, arylalkyloxy or amino group; and

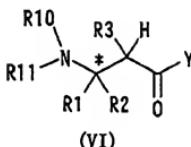
R4 and R5

are the same or different and each is a silyl-protecting group or an optionally substituted benzyl, benzhydryl or trityl group,

provided that when one of R4 and R5 is a silyl-protecting group, then the other should be other than a silyl-protecting group,

to a deprotection reaction of an amino group and a carboxyl group.

5. (Original) A production method of an optically active compound represented by the formula (VI)



wherein

R10 and R11

are the same or different and each is a hydrogen atom, or an optionally substituted benzyl, benzhydryl or trityl group,

provided that when one of R10 and R11 is a hydrogen atom, then the other should be other than a hydrogen atom;

Y is a hydroxyl group, or an optionally substituted alkoxy, aryloxy, arylalkyloxy or amino group;

R1, R2 and R3

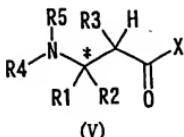
are each independently a hydrogen atom, or an optionally substituted alkyl, alkenyl or aryl group, or

R1 and R3 may be linked to form a straight or branched chain alkylene having 1 to 4 carbon atoms,

provided that R1 and R2 are not the same; and

* shows an asymmetric carbon,

which comprises subjecting a compound represented by the formula (V)



wherein

R1, R2, R3 and *

are as defined above;

X is an optionally substituted alkoxy, aryloxy, arylalkyloxy or amino group; and

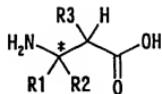
R4 and R5

are the same or different and each is a silyl-protecting group or an optionally substituted benzyl, benzhydryl or trityl group,

provided that when one of R4 and R5 is a silyl-protecting group, then the other should be other than a silyl-protecting group,

to a quenching step.

6. (Original) A production method of an optically active β -amino acid represented by the formula (I)



(I)

wherein

R₁, R₂ and R₃

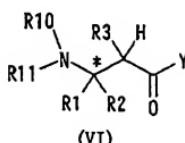
are each independently a hydrogen atom, or an optionally substituted alkyl, alkenyl or aryl group, or

R₁ and R₃ may be linked to form a straight chain or branched chain alkylene having 1 to 4 carbon atoms,

provided that R₁ and R₂ are not the same, and

* shows an asymmetric carbon,

which comprises subjecting a compound represented by the formula (VI)



wherein

R₁, R₂, R₃ and *

are as defined above;

R₁₀ and R₁₁

are the same or different and each is a hydrogen atom, or an optionally substituted benzyl, benzhydryl or trityl group,

provided that when one of R10 and R11 is a hydrogen atom, then the other should be other than a hydrogen atom; and

Y is a hydroxyl group, or an optionally substituted alkoxy, aryloxy, arylalkyloxy or amino group,

to an amino-deprotecting reaction and, where necessary, a carboxyl-deprotecting reaction.

7. (Currently Amended) The production method of ~~any of claims 1 to 6~~ claim 1, wherein R2 is a hydrogen atom.

8. (Currently Amended) The production method of ~~any of claims 1 to 7~~ claim 1, wherein R2 and R3 are hydrogen atoms, R4 is a trimethylsilyl group, R5 is a benzyl group, R6 and R7 are phenyl groups, R8 and R9 are methyl groups, n is 0 and X is a tert-butoxy group.

9. (Original) The production method of claim 8, wherein R1 is a phenyl group.

10. (New) The production method of claim 2, wherein the reaction is carried out in the additional presence of chlorotrimethylsilane.

11. (New) The production method of claim 2, wherein R2 is a hydrogen atom.

12. (New) The production method of claim 2, wherein R2 and R3 are hydrogen atoms, R4 is a trimethylsilyl group, R5 is a benzyl group, R6 and R7 are phenyl groups, R8 and R9 are methyl groups, n is 0 and X is a tert-butoxy group.

13. (New) The production method of claim 12, wherein R1 is a phenyl group.

14. (New) The production method of claim 4, wherein R2 is a hydrogen atom.

15. (New) The production method of claim 4, wherein R2 and R3 are hydrogen atoms, R4 is a trimethylsilyl group, R5 is a benzyl group, R6 and R7 are phenyl groups, R8 and R9 are methyl groups, n is 0 and X is a tert-butoxy group.

16. (New) The production method of claim 15, wherein R1 is a phenyl group.

17. (New) The production method of claim 5, wherein R2 is a hydrogen atom.

18. (New) The production method of claim 5, wherein R2 and R3 are hydrogen atoms, R4 is a trimethylsilyl group, R5 is a benzyl group, R6 and R7 are phenyl groups, R8 and R9 are methyl groups, n is 0 and X is a tert-butoxy group.

19. (New) The production method of claim 18, wherein R1 is a phenyl group.

20. (New) The production method of claim 6, wherein R2 is a hydrogen atom.

21. (New) The production method of claim 6, wherein R2 and R3 are hydrogen atoms, R4 is a trimethylsilyl group, R5 is a benzyl group, R6 and R7 are phenyl groups, R8 and R9 are methyl groups, n is 0 and X is a tert-butoxy group.

22. (New) The production method of claim 21, wherein R1 is a phenyl group.

SUPPORT FOR THE AMENDMENTS

Claims 3, 7, and 8 have been amended.

Claims 10-22 have been added.

Support for the amendment to Claims 3, 7, and 8 and new Claims 10-22 is found in original Claims 1-9. The amendment to Claims 3, 7, and 8 and the introduction of new Claims 10-22 serves to remove multiple dependencies.

No new matter is believed to be added upon entry of the amendment.